

**AMENDMENTS TO THE CLAIMS**

1-6. (Canceled)

7. (Previously presented) A trap vector selected from the group consisting of the following (a) to (i):

- (a) SP-SA-*lox71*-IRES-M-*loxP*-PV-SP;
- (b) SP-*lox71*-IRES-M-*loxP*-PV-SP;
- (c) SA-*lox71*-IRES-M-*loxP*-pA-PV-SP;
- (d) SA-*lox71*-IRES-M-*loxP-puro*-pA-PV-SP;
- (e) *lox71*-M-*loxP*-pA-*lox2272*-PV-*lox511*;
- (f) *lox71*-IRES-M-*loxP*-pA-*lox2272*-PV-*lox511*;
- (g) (*lox71*-integrated SA)-M-*loxP*-pA-*lox2272*-PV-*lox511*;
- (h) (*lox71*-integrated SA)-IRES-M-*loxP*-pA-*lox2272*-PV-*lox511*; and
- (i) (*lox71*-integrated SA)-M-*loxP*-pA-*lox2272*-promoter-M-*lox511*-SD;

wherein SP represents any sequence; SA represents a splice acceptor; SD represents a splice donor; IRES represents an internal ribosomal entry site; M represents a marker gene; *puro* represents puromycin resistance gene; pA represents a poly(A) sequence; and PV represents a plasmid vector.

8. (Original) The trap vector of claim 7, wherein the plasmid vector is any one selected from the group consisting of pBR, pUC, pSP and pGEM.

9-10. (Canceled)

11. (Currently Amended) A method of gene trapping, comprising the steps of:  
introducing the trap vector of any one of claims [[1, 4,]] 7, 8 or 21 into embryonic stem cells;  
culturing the embryonic stem cells;  
selecting those cells which exhibit a pattern of single copy integration of the trap vector;  
and  
isolating the trapped gene.

12. (Currently Amended) Embryonic stem cells into which the trap vector of any one of claims [[1, 4,]] 7, 8 or 21 is introduced.

13-20. (Canceled)

21. (Previously Presented) A trap vector selected from the group consisting of the following (a) to (i):

- (a) SP-SA-*lox66*-IRES-M-*loxP*-PV-SP;
- (b) SP-*lox66*-IRES-M-*loxP*-PV-SP;
- (c) SA-*lox66*-IRES-M-*loxP*-pA-PV-SP;
- (d) SA-*lox66*-IRES-M-*loxP-puro*-pA-PV-SP;

- (e) *lox66-M-loxP-pA-lox2272-PV-lox511*;
- (f) *lox66-IRES-M-loxP-pA-lox2272-PV-lox511*;
- (g) (*lox66-integrated SA*)-*M-loxP-pA-lox2272-PV-lox511*;
- (h) (*lox66-integrated SA*)-*IRES-M-loxP-pA-lox2272-PV-lox511*; and
- (i) (*lox66-integrated SA*)-*M-loxP-pA-lox2272-promoter-M-lox511-SD*;

wherein SP represents any sequence; SA represents a splice acceptor; SD

represents a splice donor; IRES represents an internal ribosomal entry site; M represents a marker gene; *puro* represents puromycin resistance gene; pA represents a poly(A) sequence; and PV represents a plasmid vector.